



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/783,729	02/20/2004	Marie S. Chan	5719	6615

7590

06/13/2006

Milliken & Company
P.O. Box 1927
Spartanburg, SC 29304

EXAMINER

HARDEE, JOHN R ...

ART UNIT	PAPER NUMBER
----------	--------------

1751

DATE MAILED: 06/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/783,729

Applicant(s)

CHAN ET AL.

Examiner

John R. Hardee

Art Unit

1751

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 2, 2006 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-25 and 27-39 remain rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. What does applicant mean by "less than about 75 parts by weight..."? It appears that the absorbent particulate must be present, but "less than" reads on zero. Is this a mandatory ingredient? If so, applicant should recite a lower limit for which basis exists in the specification. If not, it should be indicated as optional.

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 1-11, 13-16, 21-25 and 27-39 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Trinh et al (US 4,481,126).

Trinh discloses a substantially nonabrasive, liquid car cleaner composition which cleans car surfaces without an external source of water to wash or rinse. The product is a composition of up to 30% polymeric solids, up to 95% liquid carrier and a suspension aid. (abstract) Other optional ingredients such as waxes, fluorosurfactants, anticorrosion agents, antistatic agents, sunscreening agents, inorganic mild abrasives, pigments, perfumes, and preservatives can also be used for added benefits. (col. 2, lines 64-68) The liquid car cleaner composition of this invention comprises organic polymeric solids selected from the group consisting of: porous and/or nonporous powdered particles in the particle size range of from 1 micron to about 250 microns (col. 2, lines 37-42) A liquid carrier is required and can be used at a level of up to 95% by weight of the composition. Water and aliphatic hydrocarbon (oil) solvents are used as the liquid carrier. The hydrocarbons can boil as high as 300 degrees C, making obvious the use of mineral oil. Mixtures of water and aliphatic hydrocarbon solvents are preferred. Both surfactants and thickeners are used as the suspending agent. The surfactants are also used as emulsifier and cleaning aid. (col. 2, lines 53-56 and 59-62) The suitable polymeric particulate materials can be synthetic or naturally-occurring polymeric materials include, but are not limited to, polyethylene, polypropylene, polystyrene, polyester resin, urea-formaldehyde resin, polyvinyl chloride, polyacrylics, polyamide, and copolymers, whereas the naturally-occurring polymeric materials are cellulosic materials. (col. 3, lines 34-44) The suspending agents useful in this invention

Art Unit: 1751

are suitable surfactants and thickeners and mixtures thereof. These surfactant suspending agents have the properties of dispersing solid particles and liquid droplets. They are used to disperse the polymeric particles throughout the cleaner compositions. Most of the cleaning compositions of this invention contain both oil and water phases. The surfactants also stabilize the emulsion of these two phases. Substantially any surfactant materials which are compatible with the other components in the composition of this invention can be utilized. These include nonionic, anionic, cationic, amphoteric and zwitterionic surfactants. Regarding claim 11, the reference discloses at col. 7, line 13 that nonionic surfactants generally are useful in the compositions, and the structure in claim 11 is generic to most nonionic surfactants. The composition of this invention can consist of up to 10% by weight of a suspending agent surfactant; preferably between 0.4% and 2%. Thickener suspending agents that can be utilized include, but are not limited to, salts of polyacrylic acid polymer, sodium carboxymethyl cellulose, hydroxyethyl cellulose, acrylic ester polymer, polyacrylamide, polyethylene oxide, natural polysaccharides such as gums, algin, pectins. They are used at effective levels of up to 10%. (col. 5, lines 18-45) Although the reference does not teach that the surfactant provides a surface tension in water of about 40 dynes per cm, the compositions are identical and thus the property would be inherent. Example 1 discloses all of the instantly claimed components in their required amounts. (col. 10, lines 46-68)

The reference fails to teach the particle size of the calcium carbonate used.

The reference fails to teach the specific surfactant of claim 11. The reference fails to teach that the acrylic component that is disclosed is an acrylic stain resistant agent.

Although the reference fails to teach the particle size of the calcium carbonate used, the reference does teach that mild inorganic abrasives such as calcium carbonate powder can also be used when polishing action is desired so long as they do not leave unsightly residue on textured vinyl surfaces, (col. 6, lines 28-31) as well as the particle sizes of the other solids that are present, therefore there would be a reasonable expectation of success to modify the prior art to arrive at the instantly claimed invention because the prior art suggest a particle size of other solids to be suspended. Although the reference fails to teach the specific surfactant of claim 11, there would be a reasonable expectation of success to modify the prior art to arrive at the instantly claimed invention because the prior art does suggest that any surfactant that is compatible with the system may be used. Although the reference fails to teach that the acrylic component that is disclosed is an acrylic stain resistant agent the reference does teach that acrylic additives may be used, therefore there would be a reasonable expectation that material of the same structure will have similar properties.

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to create the instantly claimed composition in view of the Trinh cleaning composition, which contains all the required components in the required amounts.

Art Unit: 1751

6. Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Trinh et al (US 4,481,126), as relied upon in the rejection above, further in view of Froehlich (US 3910848) or Brown (US 5514302).

The primary reference fails to teach that aerosol may be used with the liquid cleaner of the variety disclosed.

Although the reference does not disclose the use of an aerosol propellant, the use of aerosols with cleaning compositions is well known in the art. Froehlich, the secondary reference in analogous art teaches that a cleaning composition containing a polymer urea-formaldehyde polymer particles having a particle size of from 10 to 105 microns and an oil value of at least 90, a halogenated solvent boiling at from 45 degrees. to 120 degree C., a silica antisetling agent, a cationic antistatic agent, and an aerosol propellant selected from at least one of trichlorofluoromethane, dichlorodifluoromethane, 1,2-dichlorotetrafluoroethane, propane, isobutane and butane. (col. 1, lines 37-60).

Therefore there is a reasonable expectation of success that an aerosol may be used with the composition of the reference as the composition of the secondary reference has similar structural properties, uses and components.

Brown, the secondary reference in analogous art teaches an improved aqueous fabric cleaning shampoo composition fabric solid cleaning polymer, surfactant in water Which may be in the form of a self-pressurized aerosol, with a conventional propellant such as dimethyl ether or one or more saturated alkanes containing from 2 to 6 carbon atoms such as propane, isopropane, n-butane, isobutane, isopentane or n-hexane is

Art Unit: 1751

added through the valve. Although the reference does not disclose the use of an aerosol propellant, the use of aerosols with cleaning compositions is well known in the art. Brown, (abstract col. 10, lines 27-48).

Therefore there is a reasonable expectation of success that an aerosol may be used with the composition of the reference as the composition of the secondary reference has similar structural properties, uses and components.

7. Claims 1-4, 6-15, 17, 18 and 27-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al (US 4,534,892). Suzuki discloses a liquid detergent composition containing an anionic surface active agent and a water-insoluble fine powder, characterized by containing therein a cross linking type amphoteric polymer and an inorganic salt. (abstract). The amphoteric polymer may comprise acrylic acid or acrylic ester units, making it a polyacrylic acid or ester. Inorganic salts used in the present invention are alkali metals, alkaline earth metals or aluminum salts of hydrochloric acid, sulfuric acid, nitric acid, etc. Of such inorganic salts, preferred are potassium sulfate, sodium sulfate, magnesium sulfate, aluminum sulfate, potassium nitrate, sodium nitrate, magnesium nitrate, calcium nitrate, aluminum nitrate, potassium chloride, sodium chloride, magnesium chloride, calcium chloride, aluminum chloride, potassium carbonate, sodium carbonate, and aluminum carbonate, and particularly sodium sulfate, potassium nitrate, sodium nitrate, potassium chloride and sodium chloride are preferable. With respect to the amount of the inorganic salt to be incorporated into the liquid detergent composition of the present invention, the ratio

Art Unit: 1751

(weight ratio) of the inorganic salt relative to the cross linking type amphoteric polymer is important, and the amount of the inorganic salt should be 10 to 1/10 times that of the cross linking type amphoteric polymer. (col. 5, lines 25-44) Alkyl- or alkenylethoxy sulfates having straight or branched chain alkyl or alkenyl groups with the average carbon number of 8-20 and having added ethylene oxide of 0.5-8 moles on average to the molecule. (col. 5, lines 56-59) Furthermore, although water-insoluble fine powder used in the present invention is not particularly limited to specific ones, preferably usable are pigments such as silicon dioxide, aluminum oxide, magnesium oxide, titanium oxide, aluminosilicate, silicon carbide, calcium carbonate, calcium phosphate, chromium oxide, barium carbonate, Hansa Yellow, talc, etc.; pearling agents or clouding agents such as mica, fish scale, etc. and germicidal preservatives as zinc-2-pyridyl-thio-1,1'-dioxide; The fine powder usually has a particle size of less than 150 microns. (col. 6, lines 42-58) Nonionic surface active agents, amphoteric surface active agents and cationic surface active agents may be used in combination with the anionic surface active agents. Other components which may be incorporated are dissolving agents such as propylene glycol, glycerin, urea, etc.; viscosity regulators such as ethanol, isopropanol, higher alcohol, hydroxyethyl cellulose, hydroxypropyl cellulose, etc.; perfumes, dyes, ultraviolet absorbers, antioxidants, water-soluble anti-dandruff agents, sterilizers, preservatives, etc. The liquid detergent composition of the present invention obtained in the aforementioned manner is applicable to various purposes such as detergent for wool and silk, body shampoo, detergent for fine fabric, etc. (col. 7, lines 7-29) Example 2 teaches the use of 2-methacryloxyethyl diethylammonium ethosulfate

Art Unit: 1751

(col. 9, lines 39-58) and all the example discloses that water makes up the balance of the compositions.

Choice of one of any common biocides would be obvious in the absence of unexpected results.

Response to Arguments

8. Applicant's arguments filed June 2, 2006 have been fully considered but they are not persuasive. Applicant argues that the recitation of "less than about 75 parts by weight" implies that some non-zero amount of the recited constituent must be present. This is not persuasive because it is well settled that "less than..." reads on zero, applicant's arguments notwithstanding. The examiner does not believe that the claims are indefinite per se, but there is substantial disagreement between the examiner and the applicant regarding what the claims mean, so the 112 rejection is maintained. *As written, claims 1-10 read on a mixture of water, soap and air, i.e., soapy tap water.*

Applicant's submission of comparative examples is appreciated, but such evidence must be submitted in the form of an affidavit. Should this be done, clearer photographs should be submitted. In addition, applicant's claims should be amended to be commensurate in scope with the experimental examples.

Regarding motivation to omit silicone, applicant appears to have misunderstood the examiner's position. The question is not whether there is motivation to remove silicone from the Trinh compositions. The question is whether or not silicone is deleterious to the compositions claimed by applicant. "Consisting essentially" scope

Art Unit: 1751

does not rule out the presence of silicone unless applicant can show that silicone materially affects compositions as used by applicant, via submission of affidavit evidence.

Applicant further argues that there is no motivation to add an acrylic resin as a stain resist additive. This is not persuasive because the Trinh reference provides motivation to add an acrylate, regardless of the intended use that applicant has in mind.

Applicant argues that the examiner's position is that the compositions of Suzuki contain acrylic fibers. This is not persuasive because the Suzuki compositions contain insoluble powders which may be acrylic acid or acrylic ester copolymers. Applicant's recitation of a dispersion stabilizing agent is a recitation of intended use, which does not add patentable weight.

Applicant's attempts to advance the prosecution of this application are appreciated. Accordingly, this rejection is NOT FINAL.

Affidavit evidence will not be accepted after final rejection.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to the examiner, Dr. John R. Hardee, whose telephone number is (571) 272-1318. The examiner can normally be reached on Monday through Friday from 8:00 until 4:30. In the event that the examiner is not available, his supervisor, Mr. Douglas McGinty, may be reached at (571) 272-1029.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8100.

Art Unit: 1751

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "J. Hardee", with a stylized flourish at the end.

John R. Hardee
Primary Examiner
June 3, 2006